

**Amendment to the Abstract:**

Please replace the Abstract with the attached Abstract.

Attachment

**ABSTRACT**

A surface profiling apparatus for providing surface profile information for a sample surface. This apparatus includes: support means for supporting a sample having a non-planar surface; light directing means for directing broadband light to an interference zone along first and second light paths; moving means for causing relative movement between the sample surface and a non-uniform sample light beam; and compensating means for compensating for the difference between the two path lengths caused by this relative movement. The first light path includes the sample surface and the second light path includes a non-planar reference surface. The light directing means comprises shaping means operable to shape the beams of light to form: a non-uniform reference light beam with a wavefront substantially matching the reference surface along the second light path; and the sample light beam with a beam profile substantially matching the reference light beam profile along the first light path.